Invoice



3780 Kilroy Airport Way Suite 750 Long Beach, CA 90806 P: (562) 590-6500

De Maximis Inc.

186 Center Street, Suite 290

6664-05

Clinton, NJ 08809

Project

September 20, 2016

Project No:

6664-05

Invoice No:

LPR/NB Modeling Program - Developing responses to EPA comments (HD,

721204

ST and OC)

Professional Services from August 21, 2016 through September 17, 2016

Phase 2 Sediment transport Model comments

Professional Personnel

Total Labor 3,751.50

Total this Phase \$3,751.50

Phase 4 Meetings **Professional Personnel** Hours Rate Amount Senior Engineer/Scientist Senior Engineer/Scientist Canizares. Rafael 6.00 226.00 1,356.00 Engineer/Scientist II Engineer/Scientist III Mathew, Rooni 20.50 183.00 3,751.50 26.50 Totals 5.107.50 **Total Labor** 5,107.50 **Total this Phase** \$5,107.50

Phase 5 Collaboration with AQEA

Professional Personnel

Hours Rate Amount
Senior Engineer/Scientist
Senior Engineer/Scientist
Canizares, Rafael 7.00 226.00 1,582.00

Check Lockbox Account

Payable to: Moffatt & Nichol

P.O. Box 51760

Los Angeles, CA 90051-0068 ClientPayments@moffattnichol.com ACH / Wire Payment Information

Bank / Account Name: Union Bank / Moffatt & Nichol

Address: 400 California St. San Francisco, CA 94101

Account Number: 4501065066 Fed Routing Number: 122000496 International Wires

Swift Code: Bofcus33mpk

Project	6664-05	LPR/NB Modeling Program - Developing res In			721204
Engineer/S	Scientist II				
Engine	eer/Scientist III				
M	athew, Rooni	43.00	183.00	7,869.00	
	Totals	50.00		9,451.00	
	Total Labor				9,451.00
			Total this Phase		\$9,451.00
		тот	AL DUE THIS IN	NVOICE	\$18,310.00

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Project	6664-05	LPR/NB Modeling F	Program - Devel	oping res	Invoice	721204
Billing	g Backup				Tuesday, Septe	ember 20, 2016
Moffatt & Nichol		Invo	ice 721204 Date	ed 9/20/2016	rucoday, ocpi	4:27:58 PM
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Project	6664-05	LPR/NB Mod ST and OC)	eling Program -	Developing res	sponses to EPA cor	mments (HD,
Phase	2	Sediment transport M	odel comments			
Professio	nal Personnel					
			Hours	Rate	Amount	
Engineer/S	Scientist II					
Engin	eer/Scientist III					
2219	Mathew, Rooni	8/29/2016	3.00	183.00	549.00	
2219	Mathew, Rooni	8/30/2016	3.50	183.00	640.50	
2219	Mathew, Rooni	9/1/2016	4.00	183.00	732.00	
2219	Mathew, Rooni	9/13/2016	5.50	183.00	1,006.50	
2219	Mathew, Rooni	9/15/2016	1.50	183.00	274.50	
2219	Mathew, Rooni	9/16/2016	3.00	183.00	549.00	
	Totals		20.50		3,751.50	
	Total Labo	r				3,751.50
				Total thi	s Phase	\$3,751.50
Phase	4	Meetings				
Professio	nal Personnel					
			Hours	Rate	Amount	
-	gineer/Scientist					
	r Engineer/Scientist					
1548	Canizares, Rafael	8/24/2016	2.00	226.00	452.00	
	Canizaraa Dafaal	8/26/2016	4.00	226.00	904.00	
1548	Canizares, Rafael					
1548 Engineer/S	Scientist II					
1548 Engineer/S Engin	Scientist II eer/Scientist III	- 121				
1548 Engineer/S Engine 2219	Scientist II eer/Scientist III Mathew, Rooni	9/6/2016	.50	183.00	91.50	
1548 Engineer/S Engine 2219 2219	Scientist II eer/Scientist III Mathew, Rooni Mathew, Rooni	9/7/2016	2.50	183.00	457.50	
1548 Engineer/S Engine 2219 2219 2219	Scientist II eer/Scientist III Mathew, Rooni Mathew, Rooni Mathew, Rooni	9/7/2016 9/8/2016	2.50 6.00	183.00 183.00	457.50 1,098.00	
1548 Engineer/S Engine 2219 2219 2219 2219	Scientist II eer/Scientist III Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni	9/7/2016 9/8/2016 9/9/2016	2.50 6.00 7.50	183.00 183.00 183.00	457.50 1,098.00 1,372.50	
1548 Engineer/S Engine	eer/Scientist II Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni	9/7/2016 9/8/2016	2.50 6.00 7.50 4.00	183.00 183.00	457.50 1,098.00 1,372.50 732.00	
1548 Engineer/S Engine 2219 2219 2219 2219	Scientist II eer/Scientist III Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Totals	9/7/2016 9/8/2016 9/9/2016 9/16/2016	2.50 6.00 7.50	183.00 183.00 183.00	457.50 1,098.00 1,372.50	5 40 7
1548 Engineer/S Engine 2219 2219 2219 2219	eer/Scientist II Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni Mathew, Rooni	9/7/2016 9/8/2016 9/9/2016 9/16/2016	2.50 6.00 7.50 4.00	183.00 183.00 183.00	457.50 1,098.00 1,372.50 732.00	5,107.50

Check Lockbox Account

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Phase

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Project	6664-05	LPR/NB Modeling F	Program - Devel	oping res	Invoice	721204
Profession	onal Personnel					
			Hours	Rate	Amount	
Senior En	gineer/Scientist					
Senio	or Engineer/Scientist					
1548	Canizares, Rafael	9/12/2016	1.00	226.00	226.00	
1548	Canizares, Rafael	9/13/2016	2.00	226.00	452.00	
1548	Canizares, Rafael	9/14/2016	3.00	226.00	678.00	
1548	Canizares, Rafael	9/16/2016	1.00	226.00	226.00	
Engineer/	Scientist II					
Engir	neer/Scientist III					
2219	Mathew, Rooni	8/29/2016	1.00	183.00	183.00	
2219	Mathew, Rooni	8/30/2016	.50	183.00	91.50	
2219	Mathew, Rooni	8/31/2016	2.00	183.00	366.00	
2219	Mathew, Rooni	9/2/2016	4.00	183.00	732.00	
2219	Mathew, Rooni	9/6/2016	7.50	183.00	1,372.50	
2219	Mathew, Rooni	9/7/2016	5.50	183.00	1,006.50	
2219	Mathew, Rooni	9/8/2016	2.00	183.00	366.00	
2219	Mathew, Rooni	9/9/2016	.50	183.00	91.50	
2219	Mathew, Rooni	9/12/2016	4.00	183.00	732.00	
2219	Mathew, Rooni	9/13/2016	2.50	183.00	457.50	
2219	Mathew, Rooni	9/14/2016	8.00	183.00	1,464.00	
2219	Mathew, Rooni	9/15/2016	5.50	183.00	1,006.50	
	Totals		50.00		9,451.00	
	Total Labor					9,451.00
				Total this Phase Total this Project		\$9,451.00
						\$18,310.00
				Total this	Report	\$18,310.00

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Swift Code: Bofcus33mpk



(212) 768-7454 Fax (212) 768-7936

Detailed Description of work done by M&N personnel associated to the LPR/NB Modeling Program - Developing Responses to EPA Comments – Scope of Work for the period 08/21/2016 to 09/17/2016 M&N Project No. 6664

Hydrodynamics Principal Investigator - Rafael Cañizares.

Task 4 – Meetings	Prepare invoices May-August
Task 5 – Collaboration with AQEA	 Review AQEA ST-CFT fluff - Conference call Review final comments from EPA, discussion with PC

Rooni Mathew.

Task 2 – Sediment transport Model comments	 Revise ST Sedflume appendix with EPA comments Code/Rouse profile formulation review and edits to settling velocity attachment Edits to settling velocity attachment
Task 4 – Meetings	 Review/comment AQ slides for TC meeting regarding Sep 20 meeting w EPA Edits to Sedflume appendix Finish edits to Sedflume appendix text and figures Prep for meeting with EPA, develop list of OC validation datasets
Task 5 – Collaboration with AQEA	 Coordination with AQEA on OC model sensitivities Coordination with AQEA on modeling meeting Review AQEA plots, conference call with AQEA on fluff layer diagnostics Code changes and tests with additional output on active layer, rerun 1011-1213 Debug issues with HD rerun of V6 calibration due to hard-disk crash, rerun HD and ST w additional fluff outputs Debug HD/ST issues, review model performance and additional outputs for AQEA, and respond to AQEA questions Transfer additional outputs to AQEA, final checks on HD/ST reruns

Work Detail Invoice period 08/21/2016 to 09/17/2016 - Developing Responses to EPA Comments October 31, 2016 Page 2 of 2



•	Respond to	AQEA (questions
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- Review Section 3 comments and provide feedback to AQEA, review/provide responses to AQEA questions on linkage
- Respond to AQEA questions, review linkage outputs
- Review/plot model results to support scour velocity implementation by AQEA,
- Conference call with AQEA, review scour velocity. code
- Review/debug scour velocity code and rerun ST for additional outputs, code modifications for scour velocity with consolidated density.